

In the Specification:

Please amend the specification as follows:

On page 1, line 1, insert the following paragraph:

E1

ANTIGENIC COMPOSITION OF A PSEUDOMONAS AERUGINOSA PROTEIN

On page 1, line 5, insert the following paragraph:

E2

BACKGROUND OF THE INVENTION

On page 1, line 29, insert the following paragraphs:

BRIEF DESCRIPTION OF THE DRAWING

E3

Figure 1 depicts the separation of a protein preparation from *P. aeruginosa* by SDS-PAGE, and the position of Pa60 as visualized by protein staining.

DETAILED DESCRIPTION OF THE INVENTION

On page 2, line 6, replace the paragraph beginning with "In a preferred embodiment" with the following paragraph:

In a preferred embodiment the protein has the following N-terminal sequence:

Xaa-E-E-K-Xaa-Xaa-L-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-V-V-Xaa-N-A; and preferably:

Xaa-E-E-K-T-P-L-T-T-A-A-Xaa-A-P-V-V-Xaa-N-A.

E4

On page 5, line 1, replace the paragraph beginning with "*Pseudomonas aeruginosa* bacteria" with the following paragraph:

E⁶
Pseudomonas aeruginosa bacteria, strain 385 (Pa385), were harvested from overnight culture of 100 agar plates by scraping the plates followed by washing twice by centrifugation at 10,000 x g for 10 minutes at 4°C. A crude outer membrane preparation was obtained by extraction of the outer membrane component with buffered ZWITTERGENT 3-14 detergent and ethanol precipitation.

On page 6, line 5, replace the paragraph beginning with "Pa60 was purified" with the following paragraph:

E⁷
Pa60 was purified using preparative polyacrylamide electrophoresis (PAGE). Preparative SDS-PAGE was performed using the BioRad model 491 PREP CELL (a continuous elution electrophoresis apparatus) using a 9% T-1.42% C acrylamide/BIS (N, N'-methylene-bisacrylamide) separating gel with a 10ml 4% T-0.36% C acrylamide/BIS stacking gel polymerised in a 28mm (internal diameter) column. Fractions eluted from the column were concentrated by lyophilisation and analysed for protein content by analytical SDS-PAGE. Pa60 isolated using these conditions contained SDS which was subsequently removed by potassium phosphate precipitation. Fractions containing Pa60 were pooled and dialysed prior to determination of protein concentration.

On page 7, line 17, replace the paragraph beginning with "This provides a sequence" with the following paragraph:

This provides a sequence with the following definite amino acids:

E⁷
1 - 2-3-4-5 - 6 -7-8 - 9 - 10 -11- 12- 13 -14-15-16-17-18-19
Xaa-E-E-K-Xaa-Xaa-L-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-V-V -Xaa-N -A

On page 7, line 22, replace the paragraph beginning with "If one includes" with the following paragraph:

If one includes probable amino acids the following sequence is obtained:

E⁹
1 - 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19
Xaa-E-E-K-T-P-L-T-T -A -A-Xaa-A -P -V -V-Xaa-N -A

On page 10, line 6, replace the paragraph beginning with "An enzyme linked" with the following paragraph:

E¹⁰
An enzyme linked immunosorbent assay (ELISA) was used to measure antibodies to Pa60 in BAL and serum samples. Polysorb microtitre wells were coated with purified Pa60 at a concentration of 1µg per ml (one microgram per milliliter). The plates were washed five times in phosphate buffered saline (PBS) containing 0.05% TWEEN 20 (a surfactant and spreading agent that is also known generically as Polysorbate 20) between incubation steps. The wells were blocked with skim milk in PBS-0.05% TWEEN 20 for 60 minutes. Wells were incubated for 90

minutes with serum or BAL samples that were diluted in blocking buffer for analysis.

E10
Conjugated immunoglobulins used were rabbit anti-human IgG, IgA and IgM and wells were incubated with conjugated immunoglobulins for 90 minutes. The plates were then developed.

Human IgG, IgA and IgM were used to quantitate the antibody.

On page 15, line 16, replace the paragraph beginning with "In yet another" with the following paragraph:

E11
In yet another particular embodiment, this invention provides a method for diagnosing *P. aeruginosa* in a subject suffering from cystic fibrosis. This method comprises bringing into contact one of the proteins, antigenic fragments or antigen compositions disclosed in this invention with a biological sample obtained from a subject with cystic fibrosis. The biological sample is preferably a sample of mucous, *e.g.*, saliva. This method further comprises detecting the presence of antibodies to *P. aeruginosa* in such a sample by, for example, detecting binding between the antigens or fragments and antibodies which specifically bind such antigens or fragments, using detection means which are of common knowledge to those of skill in the art.

In the Claims:

Please cancel Claims 2, 3, 5, 6, 10-17, 23, and 28-35 without prejudice.